CHAPTER 1

The Year in Review and the Years Ahead

The recovery of the U.S. economy blossomed into a full-fledged expansion in 2004, with solid output growth and steady improvement in the labor market. Payroll employment increased by about 2.2 million jobs, the largest annual gain since 1999, and the economy expanded 3.7 percent during the four quarters of the year. The economy made these advances even as energy prices soared, the Federal Reserve raised interest rates, and the demand-side effects of fiscal policy stimulus began to recede in the second half. Such continued growth indicates that the economy has shifted from a policy-supported recovery to a self-sustaining, healthy expansion.

This chapter reviews the economic developments of 2004 and discusses the Administration's forecast for the years ahead. The key points in this chapter are:

- Real gross domestic product (GDP) grew solidly during 2004. Business investment in equipment and software accelerated, and consumer spending growth remained strong.
- Labor markets strengthened during the year. The unemployment rate continued to decline, and employers created more than 2 million new jobs.
- Inflation rose from the extremely low levels of 2003, partly because of rapid increases in energy prices. Nevertheless, core consumer price index (CPI) inflation has remained in the moderate 2 percent range, and inflation expectations remain low.
- The Administration's forecast calls for the economic expansion to continue this year, with real GDP growing faster than its historical average and the unemployment rate continuing to decline. The economy is expected to continue on a path of strong, sustainable growth.

Developments in 2004 and the Near-Term Outlook

Real GDP grew a robust 3.7 percent during the four quarters of 2004, above the average historical pace. (Real GDP growth was 4.4 percent on a year-over-year basis comparing GDP for 2004 as a whole with GDP for 2003 as a whole.) Growth was supported by gains in consumer spending, business fixed investment, and, to a lesser extent, housing investment, inventory accumulation, and government spending. Net exports (exports less imports) held down growth in all four quarters as the trade deficit rose in the third quarter to a record high as a percentage of GDP. Strengthening economic growth among our trading partners led to an increase in exports, but imports

continued to outpace exports as U.S. domestic demand and demand for imported oil remained strong. The rise in crude oil prices reduced growth somewhat during the year (Box 1-1).

The Administration expects real GDP to grow 3.5 percent during the four quarters of 2005, in line with the consensus of professional forecasters. This growth is forecast to be driven by continued gains in consumer spending, investment growth (although slower than in 2004), and stronger net exports. The unemployment rate, which declined 0.5 percentage point to 5.4 percent during the four quarters of 2004, is projected to edge down further to 5.3 percent by the fourth quarter of 2005. Nonfarm payroll employment, which grew about 180,000 per month during 2004, is projected to grow about 175,000 per month in 2005, in line with other professional forecasts.

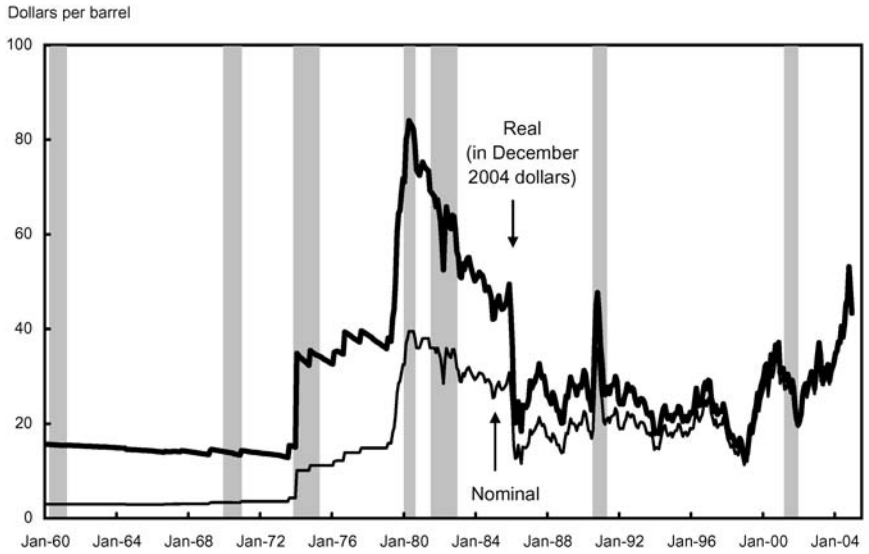
Box 1-1: Oil Prices and the Economy

Rising oil prices hindered growth in 2004. Boosted by strong world demand and both domestic and foreign supply disruptions, the price of crude oil purchased by refiners increased almost continuously from $29 per barrel in December 2003 through October 2004 when it peaked at $46 per barrel. A more-widely followed (but less comprehensive) measure, the spot price of West Texas Intermediate crude oil, peaked even higher, at $53 per barrel for the month of October. These prices were historical highs in nominal terms, and were about 60 percent of the all-time high in real terms (Chart 1-1). Crude oil prices then dropped off in November and December. For 2004 as a whole, refiners' acquisition cost was almost $9 per barrel above its year-earlier level.

High oil prices are a headwind for the economy because they raise the cost of production, thus weakening the supply side of the economy, and absorb income that could have been used for other purchases, thus weakening the demand side of the economy. The United States imports about two-thirds of its crude oil (about 10 million barrels per day), and so the higher oil prices caused the bill for imported oil to increase by about $32 billion (or 0.3 percent of GDP) in 2004. This increase acted like a tax holding back aggregate demand.

One rule of thumb is that a $10 per barrel increase in the price of oil reduces the level of real GDP by roughly 0.4 percent after four quarters. Thus the roughly $9 per barrel increase in average oil prices for 2004 may have held back real GDP growth by 0.3 or 0.4 percentage point. If oil prices move as expected by the futures market, average oil prices in 2005 will only slightly exceed the 2004 average—so oil prices are expected to be only a minor impediment to 2005 growth.

Chart 1-1 **Real and Nominal Price of West Texas Intermediate Crude Oil**
At its peak in 2004, the real price of crude oil was lower than in the early 1980s.



Note: Personal consumption expenditures price index used as deflator. Shaded areas indicate recessions.
Sources: New York Mercantile Exchange, Department of Commerce (Bureau of Economic Analysis), and Council of Economic Advisers.

Consumer Spending

Consumer spending continued its solid growth in 2004. Real personal consumption expenditures, which account for 70 percent of GDP, rose 3.9 percent during the four quarters of 2004. Consumer spending has been boosted by continued gains in disposable personal income and a rebound in household wealth. Real disposable personal income—after-tax income adjusted for inflation—rose by 2.3 percent at an annual rate during the first 11 months of 2004. Household net worth, meanwhile, grew at a 6 percent annual rate in the first three quarters of 2004 (on top of a 13-percent gain during 2003), as equity prices moved up and housing prices continued to increase.

Personal saving fell to 0.8 percent of disposable personal income in the first 11 months of the year, down from an average of 1.4 percent in 2003. The Administration forecast assumes that the saving rate will be roughly flat in the coming years. Consumer spending is projected to continue its solid growth in 2005, supported by solid consumer sentiment (which was above average historical levels in December), projected real compensation gains, and the recent rebound in household wealth. Real consumer spending is projected to grow somewhat more slowly than overall real GDP during the projection period to 2010.

Residential Investment

The housing sector remained strong through year-end 2004. Residential investment increased 6 percent during the four quarters of 2004, following a 12 percent gain during 2003. Demand for new housing has been stimulated by low mortgage rates. Rates on 30-year fixed-rate mortgages averaged 5.8 percent in 2004—about the same as a year earlier, but lower than at any other time in the past 30 years. Sales of new single-family homes during 2004 were the highest since at least 1963, when the government began tracking this information, and the homeownership rate was a record 69 percent.

The strength in housing demand has been reflected in home prices. An index of prices for houses involved in repeat transactions (that is, sales prices of the same house over time) increased by 13 percent during the four quarters ended in the third quarter of 2004—the biggest four-quarter increase since the late 1970s. The rapid increase in demand and prices has further helped support gains in home construction. Housing starts totaled 1.95 million units during 2004, making it the strongest year for housing starts since 1978.

The growth of new housing starts will likely slow in 2005. Long-term Treasury rates are projected to increase, leading mortgage rates to edge up as well. In addition, demographics suggest that the formation of new households is unlikely to support additional increases in housing activity. Taken together, these factors suggest that residential construction is likely to edge lower in the next couple of years and to remain roughly flat during the years through 2010.

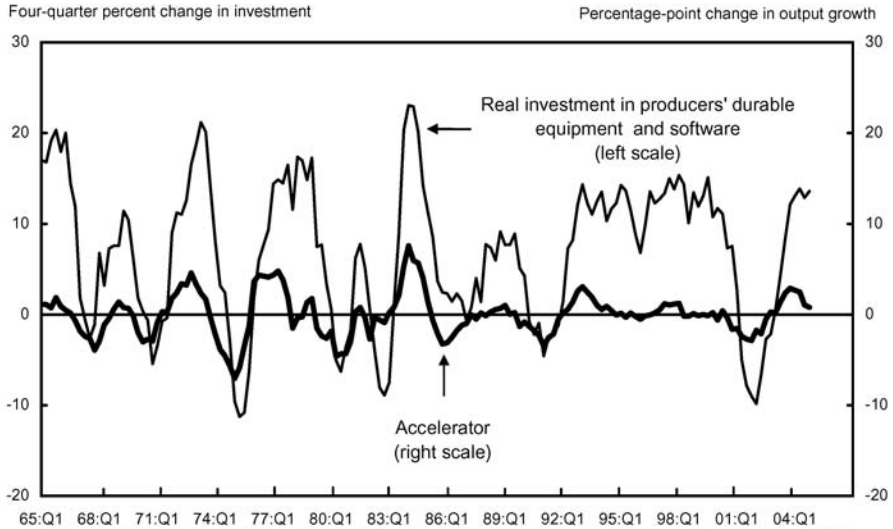
Business Fixed Investment

Real business fixed investment (firms' outlays on equipment, software, and structures) grew 9.9 percent during 2004, following a 9.4 percent gain during 2003. Growth was concentrated in equipment and software (up 13.6 percent), while nonresidential construction edged lower. Within the equipment and software category, growth during the four quarters of 2004 was particularly strong in computer equipment and software. Investment in transportation equipment also grew rapidly in 2004, overtaking its pre-9/11 level in the fourth quarter.

Nonresidential structures investment edged down during the four quarters of 2004, with a notable decline in investment in power and communications facilities. Real nonresidential construction has been stagnant since 2002, as vacancy rates in both office and industrial buildings have remained high. Construction of shopping centers and other multi-merchant structures has been robust, however.

Projections of future investment growth are based, in part, on the observation that growth in investment spending correlates well with the acceleration (that is, the change in the growth rate) of business output (Chart 1-2); the

Chart 1-2 **Investment Growth and the Acceleration of Nonfarm Business Output**
Equipment and software investment grows most rapidly when the rate of increase in output is increasing. Investment grew rapidly in 2004, partly because of the pick-up in the rate of output growth.



Note: The accelerator is the eight-quarter annualized rate of nonfarm output growth less the same figure lagged four quarters.
Sources: Department of Commerce (Bureau of Economic Analysis) and Council of Economic Advisers.

reasons for this correlation are discussed more fully in Chapter 2, *Expansions Past and Present*. Equipment investment spending grew quite fast during 2003 and 2004, consistent with the rapid acceleration of nonfarm output growth from 2001 to 2003. The 3.5 percent growth projected for real GDP during the four quarters of 2005 is solid but below the growth rates of 2003 and 2004. It follows, therefore, that the growth of investment is likely to be slower in 2005 than in 2004. In addition, the termination of the special investment expensing provisions allowed under the Jobs and Growth Tax Relief Reconciliation Act of 2003 (JGTRRA) is likely to have advanced into 2004 some investment spending that might have been planned for early 2005. The end of this policy could limit investment growth in the first quarter of 2005.

Business Inventories

Businesses rebuilt inventories in 2004; inventory investment was solidly positive during the year, after being slightly negative in 2003. Inventory investment contributed an average of 0.35 percentage point to real GDP growth during the four quarters of 2004.

Inventories appear to be lean relative to economy-wide sales and shipments, with the inventory-to-sales ratio for manufacturing and trade close to its historic low. Assessing just how lean these inventories are is difficult, however,

as ongoing improvements in supply-chain management (such as just-in-time practices, discussed in Chapter 2) have reduced the need for inventory stocks. Inventories grew almost as fast as sales in 2004, and the inventory-to-sales ratio for manufacturing and trade edged down only slightly last year. Inventory investment in 2005 is projected to be sufficient to hold the inventory-to-sales ratio approximately constant, and the pace of inventory investment is projected to contribute little to GDP growth in 2005.

Government Purchases

Real Federal purchases (consumption expenditures and gross investment) grew at a 4 percent rate during the four quarters of 2004, with most of that growth accounted for by defense spending. Total nominal Federal expenditures (including transfer and interest payments) slowed to a 5 percent rate of growth during 2004 from a 6 percent rate in 2003.

After several difficult years, the budget position of states and localities improved recently due to a combination of spending restraint and renewed growth of revenues. The level of real state and local consumption and gross investment was little changed during 2004, the lowest growth in real spending since the early 1980s. State and local revenues have been boosted by increased household income and consumer spending, as well as by additional federal grants authorized under JGTRRA. Spending restraint, together with a pickup in revenues, boosted the net saving of state and local governments to roughly $11 billion during the first three quarters of 2004, roughly reversing the *dis*saving during the year-earlier period. Real state and local spending is projected to pick up from last year's slow growth, to about 2 percent per year during the projection period.

Exports and Imports

The trade deficit expanded substantially during 2004. Real exports increased 4 percent, as economic growth strengthened among our major trading partners, but real imports increased even faster (at a 9.2 percent rate), partly due to the more robust recovery in the United States than abroad. The trade deficit on goods and services reached about 5¼ percent of GDP in the third quarter of 2004.

The rapid increases in real imports were widespread and included capital goods and industrial supplies, petroleum, and consumer goods.

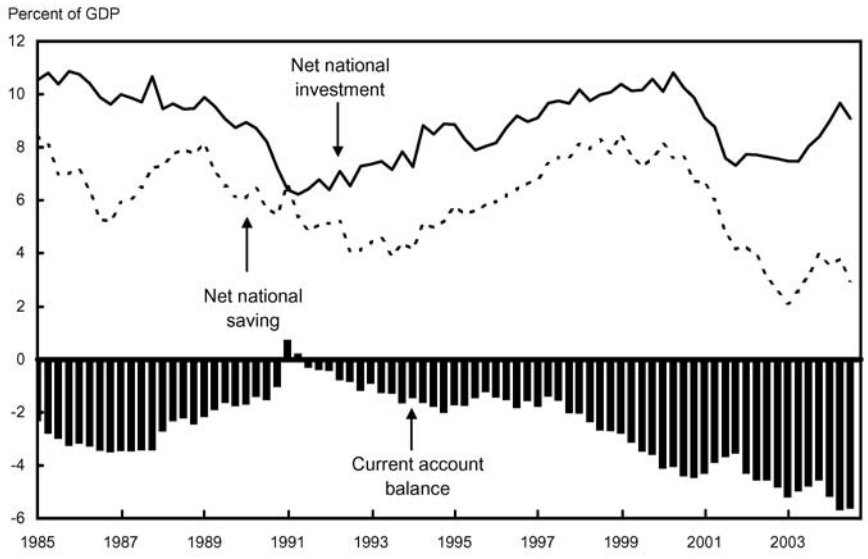
All the major categories of real nonagricultural exports (capital goods, industrial supplies, motor vehicles, consumer goods, and services) contributed to the growth of overall exports. Agricultural exports declined, however, as exports of beef fell on concerns about "mad cow" disease. Due to the detection of the first known case of "mad cow" disease in the United States in late

2003, a number of countries that together account for most U.S. beef exports have completely or partially halted purchases of American beef. As a result, beef exports—which were $3.1 billion in 2003—have now fallen to about $0.5 billion at an annual rate.

The rapid growth of imports relative to exports largely reflects faster growth in the United States than among our trading partners, as U.S. demand for imports increases faster than foreigners' demand for our exports. For example, the U.S. economy grew faster than its trading partners in the Organization for Economic Cooperation and Development (OECD) during the four quarters of 2003 (4.4 percent versus 2.2 percent), and the OECD growth estimate for the four quarters of 2004 also shows slower growth elsewhere in the OECD (2.7 percent) than the 3.7 percent official estimate of growth for the United States.

The current account deficit, which primarily reflects the trade deficit but also includes net international flows of investment income and transfers, widened to about 5.6 percent of GDP in the second and third quarters. The current account deficit represents the inflow of capital that is needed to finance domestic U.S. investment in excess of domestic saving. Over the latter half of the 1990s and the early 2000s, the U.S. current account deficit expanded as domestic investment grew faster than saving (Chart 1-3). More recently, the current account deficit has expanded as the national saving rate has fallen.

Chart 1-3 **Saving, Investment, and the Current Account Balance**
Lower national saving primarily accounts for the widening of the current account deficit since 2000.



Source: Department of Commerce (Bureau of Economic Analysis).

Looking ahead, stronger growth in U.S. trading partners appears to favor continued gains in export growth. Growth among the non-U.S. members of the OECD is projected to increase from 2.7 percent during the four quarters of 2004 to 3.0 percent during the four quarters of 2005. This growth should support growth in U.S. exports. This effect will likely be augmented by an expected rise in the U.S. share of world exports, owing in part to recent declines in the value of the dollar against other major currencies. Overall, the Administration projects real exports to grow noticeably faster than GDP in 2005. The projected moderation of U.S. GDP growth in 2005 and 2006 together with the recent change in the exchange value of the dollar suggest that growth in real imports will slow in the future.

Employment

Nonfarm payroll employment increased about 2.2 million during 2004, the largest annual gain since 1999. The unemployment rate declined to 5.4 percent in December 2004, well below the 6.3 percent peak of June 2003. The unemployment rate in 2004 was below the averages of the 1970s, the 1980s, and the 1990s.

Job gains were spread broadly across major industry sectors in 2004. The service-providing sector accounted for 85 percent of job growth during the year, in line with its 83 percent share of overall employment. The goods-producing sector accounted for the remaining 15 percent of the gains, in line with its 17 percent share of overall employment. Within the goods-producing sector, employment growth was concentrated in construction; manufacturing employment also increased, the first such gain since 1997.

These employment figures reflect the benchmark adjustment of the employment data in early February 2005. The employment data for 2004 will also be affected by next year's benchmarking process, which will cover the period from March 2004 to March 2005.

The Administration projects that employment will increase at a pace of about 175,000 jobs per month on average during the 12 months of 2005—a projection that is in line with the consensus of private forecasters. The unemployment rate is projected to edge down to 5.3 percent by the fourth quarter of 2005. Employment growth is not expected to slow by as much as output growth because productivity (output per hour) is projected to increase at a slower pace than in 2004, and more of the projected output growth may be translated into labor demand and employment in 2005 than in 2004.

Productivity

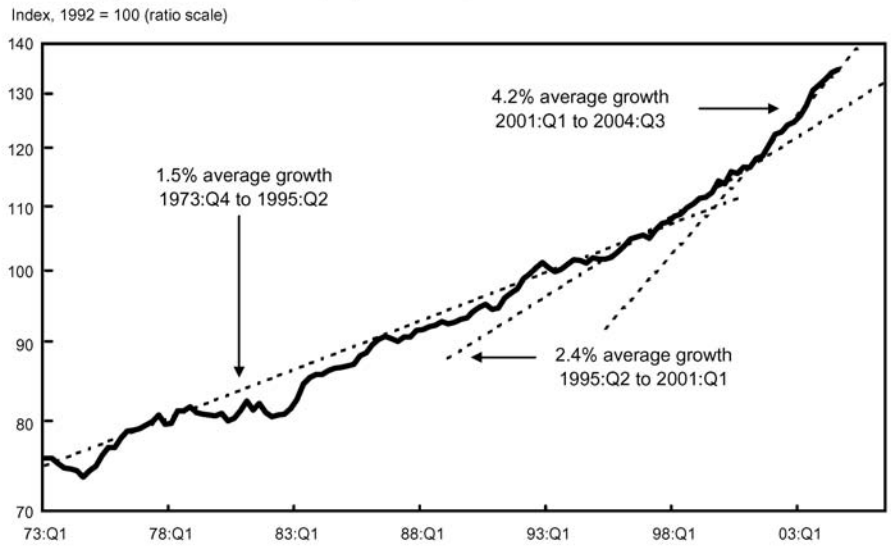
Recent productivity growth has been extraordinary. Nonfarm productivity has grown at a 4.2 percent annual rate since the business-cycle peak in the first quarter of 2001, a period that includes both recession and recovery. This is a 1.8 percentage point acceleration from the already rapid 2.4 percent annual growth rate recorded from 1995 to 2001 (Chart 1-4).

Although the cause of the 1995 acceleration is not well understood, plausible explanations have been offered relating to capital deepening, especially of informational and organizational capital. But none of these explanations helps to explain the post-2000 productivity acceleration, which occurred despite a slowing of investment in both conventional capital goods and information technology (IT).

Wages and Prices

Following very low inflation during 2003, most measures of inflation increased during 2004, with the largest increases in those price indexes that include energy. For example, the consumer price index (CPI) increased 3.3 percent over the 12 months of 2004, well above the 1.9 percent rise

Chart 1-4 **Labor Productivity, Nonfarm Business Sector**
Productivity growth, which was already rapid after 1995, accelerated further after 2000.



Note: This official productivity measure is based on the product-side measure of real output.
Sources: Department of Labor (Bureau of Labor Statistics) and Council of Economic Advisers.

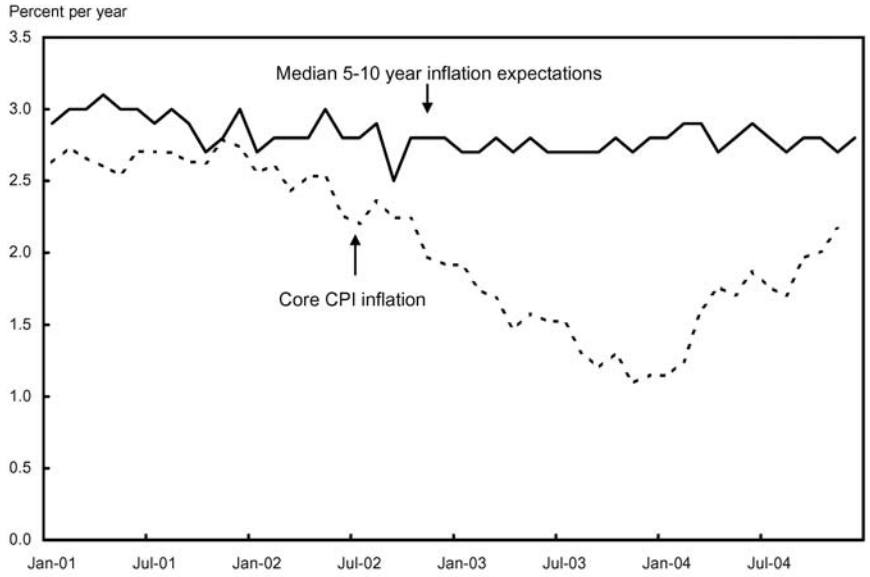
during the previous year. Excluding the volatile food and energy components, core consumer prices increased 2.2 percent during 2004, up from 1.1 percent during 2003. About 0.4 percentage point of the year-to-year acceleration in the core CPI is accounted for by used car prices, which dropped sharply in 2003 before rebounding in 2004. Consumer energy prices increased 17 percent in 2004—with particularly large (27 percent) increases in petroleum-based energy prices. Food prices increased 2.7 percent during 2004, down slightly from their 3.6 percent rise in 2003.

Hourly compensation of workers grew solidly during the year, mostly because of rising benefits. Private-sector hourly compensation, as measured by the employment cost index (ECI), increased 3.8 percent during the 12 months of 2004—down slightly from its 4.0 percent year-earlier pace. The wages and salaries component of this measure rose 2.4 percent during the year, while benefits increased by 6.9 percent. The increase in hourly benefits was led by an increase in employer contributions to defined benefit programs—which increased at a 66 percent annual rate during the first three quarters of 2004, according to the employer costs for employee compensation index (derived from the same survey as the ECI, but with different weights). This rapid increase occurred as employers made "catch-up" contributions to their pension plans to offset some of the underfunding that developed in recent years. Employer-paid health premiums rose 7.3 percent during 2004 according to the ECI, a smaller increase than the 10.5 percent during 2003.

The effects of these gains in hourly compensation on unit labor costs were mostly offset by the rapid growth rate of productivity during the first three quarters of 2004. Unit labor costs rose at only a 0.7 percent annual rate during the first three quarters of 2004, after falling from 2001 through 2003. Most of the increase in prices during 2004 was attributable to widening gross profit margins rather than to increasing costs, suggesting some tightness in product markets. Consistent with this product-market tightness, delivery lags lengthened during the first half of 2004, as reported by manufacturing supply managers. These supply delivery lags increased much more slowly toward year-end, however, and the experience of the last two expansions suggests that these lags are likely to recede as the economy reconfigures itself for sustained growth.

Last year's increase in inflation appears likely to have been a temporary phenomenon rather than the beginning of a sustained increase. Inflation, as measured by the CPI, is expected to stabilize at a 2.4 percent annual rate in future years, up only slightly from the 2.2 percent increase in the core CPI during 2004. In 2005 and 2006, the overall consumer price index is projected to be held down by anticipated declines in energy prices consistent with the declines implicit in the futures market for crude oil. The inflation fluctuations during the past year have not affected long-term inflation expectations, which remain stable (Chart 1-5).

Chart 1-5 **Inflation and Inflation Expectations**
Long-term inflation expectations remain stable in the face of the recent uptick in core CPI inflation.



Sources: Department of Labor (Bureau of Labor Statistics) and the University of Michigan.

The projected path of inflation as measured by the GDP price index is similar, but a bit lower. It is projected to fall to 1.9 percent during the four quarters of 2005, down slightly from the 2.2 percent annual rate of increase in the GDP price index excluding food and energy during 2004. During the next several years, the GDP price index is projected to increase at a 2.0 or 2.1 percent annual rate—a stable pace of inflation consistent with the projected unemployment rate of 5.1 percent.

These inflation projections—although revised up from a year ago—are close to those of the consensus of professional economic forecasters.

The wedge between the CPI and the GDP measures of inflation has implications for Federal budget projections. A larger wedge would reduce the Federal budget surplus because cost-of-living adjustments for Social Security and other indexed programs rise with the CPI, whereas Federal revenue tends to increase with the GDP price index. For a given level of nominal income, increases in the CPI also cut Federal revenue because they raise income tax brackets and affect other inflation-indexed features of the tax code. Of the two indexes, the CPI tends to increase faster in part because it measures the price of a fixed basket of goods and services. In contrast, the GDP price index increases less rapidly because it reflects the choice of households and businesses to shift their purchases away from items with increasing relative prices

and toward items with decreasing relative prices. In addition, the GDP price index includes investment goods, such as computers, whose relative prices have been falling rapidly. Computers, in particular, receive a much larger weight in the GDP price index (1 percent) than in the CPI (0.2 percent).

During the 10 years ended in 2003, the wedge between inflation in the CPI-U-RS (a historical CPI series designed to be consistent with current CPI methods) and the rate of change in the GDP price index averaged 0.4 percentage point per year. The wedge was particularly high during 2004 when the CPI increased 1.0 percentage point faster than the GDP price index, reflecting the roughly 50 percent increase in oil prices, which have a much larger weight in consumption prices than in GDP as a whole. Since domestic production accounts for only about a third of U.S. oil consumption, the weight of oil prices in GDP is roughly one-third of its weight in the consumption basket. As this boost from higher oil prices unwinds over the next couple of years, the wedge between CPI and GDP inflation is likely to be lower than its recent average. During the entire 2004 to 2010 period, the wedge is projected to average 0.4 percentage point, equal to the Administration estimate of the wedge in the long term.

Financial Markets

Stock prices fluctuated within a relatively narrow range for the first eight months of the year, and then increased during the last four months. Over the 12 months of 2004, the Wilshire 5000, a broad index of stock prices, rose 11 percent. These gains built on the 29 percent gains that were recorded during 2003.

Long-term interest rates fluctuated substantially during 2004, but finished the year essentially unchanged. The yield on 10-year Treasury notes fell by 0.3 percentage point from January through March, to about 3.8 percent. The yield then increased sharply in the next two months, rising 0.9 percentage point, coinciding with a pickup in the core CPI and several months of strong job growth. Rates began to fall again in early June, as monthly increases in the core CPI and job growth moderated. The 10-year rate declined during the second half of the year, even as the Federal Reserve's Open Market Committee raised the (overnight) Federal funds rate at every meeting from June through December. The 10-year rate ended the year at about the same level as it had begun.

The Long-Term Outlook Through 2010

The U.S. economy continues to be well-positioned for long-term growth. The Administration projects that GDP will expand strongly through 2010, inflation will remain contained, and labor markets will continue to

strengthen. The forecast is based on conservative economic assumptions that are close to the consensus of professional forecasters. These assumptions provide a prudent and cautious basis for the budget projections.

Growth in GDP over the Long Term

The Administration projects that real GDP will grow at an average annual rate of 3.3 percent during the four years of 2005 to 2008 (Table 1-1), roughly in line with the consensus forecast for those years. This pace is slightly above the expected 3.2 percent annual growth in potential GDP (a measure of productive capacity), so the unemployment rate is projected to edge lower from 5.4 percent at the end of 2004 to 5.1 percent by the end of 2006. The unemployment rate is expected to remain flat thereafter as the economy grows at its potential rate of 3.2 percent in 2007 and 2008 and 3.1 percent in 2009 and 2010. As discussed below, potential GDP growth is expected to slow somewhat after 2008, as labor force growth declines.

The projected growth of GDP is conservative relative to recent experience. The economy grew more than 4 percent during 2003 and is estimated to have grown 3.7 percent during the four quarters of 2004. Moreover, Okun's Law, a well-known economic rule of thumb, suggests that potential GDP growth has been about 3.5 percent in recent years (Box 1-2).

TABLE 1-1.—*Administration Forecast*[1]

Year	Nominal GDP	Real GDP (chain-type)	GDP price index (chain-type)	Consumer price index (CPI-U)	Unemployment rate (percent)	Interest rate, 91-day Treasury bills[2] (percent)	Interest rate, 10-year Treasury notes (percent)	Nonfarm payroll employment (millions)
	Percent change, fourth quarter to fourth quarter					Level, calendar year		
2003 (actual)	6.2	4.4	1.7	1.9	6.0	1.0	4.0	129.9
2004	6.3	3.9	2.3	3.4	5.5	1.4	4.3	131.3
2005	5.5	3.5	1.9	2.0	5.3	2.7	4.6	133.4
2006	5.6	3.4	2.0	2.3	5.2	3.5	5.2	135.5
2007	5.4	3.2	2.1	2.4	5.1	3.8	5.4	137.5
2008	5.4	3.2	2.1	2.4	5.1	4.0	5.5	139.2
2009	5.3	3.1	2.1	2.4	5.1	4.1	5.6	140.9
2010	5.3	3.1	2.1	2.4	5.1	4.2	5.7	142.5

[1] Based on data available as of December 3, 2004. Figures cited in the text for 2004 are based on data available through January 28, 2005, and so may differ from figures shown here.

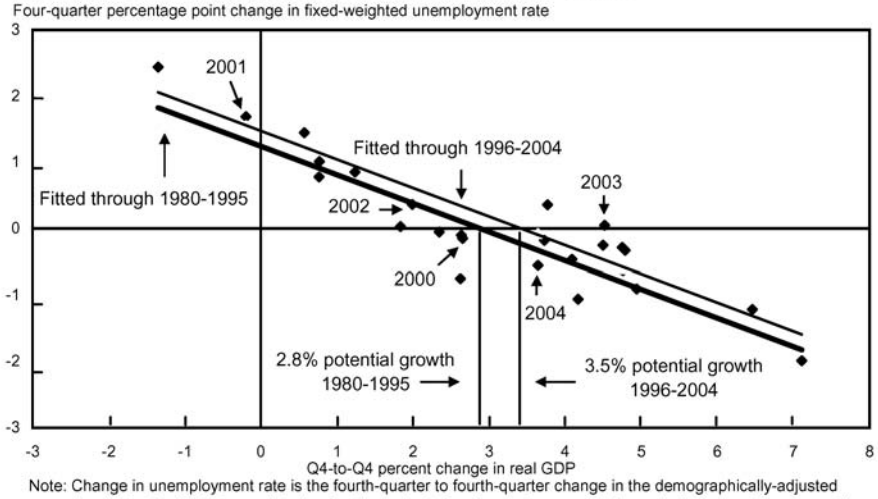
[2] Secondary market (bank discount basis).

Sources: Council of Economic Advisers, Department of Commerce (Bureau of Economic Analysis), Department of Labor (Bureau of Labor Statistics), Department of the Treasury, and Office of Management and Budget.

Box 1-2: Okun's Law

One way of estimating the economy's potential growth rate is through the empirical regularity known as Okun's Law, which relates changes in the unemployment rate to GDP growth (Chart 1-6). The chart plots the four-quarter change in the unemployment rate (which has been adjusted to account for demographic changes) against the four-quarter growth rate of real output. According to Okun's Law, the unemployment rate falls when output grows faster than its potential rate and rises when output growth falls short of that potential. The rate of real GDP growth consistent with a stable unemployment rate is then interpreted as the rate of potential growth; this potential can be estimated as the rate at which the fitted line in Chart 1-6 crosses the horizontal axis. As can be seen by the position of the two parallel lines, the pace of potential real GDP growth appears to have picked up after 1995. The lower line, which is drawn through data for 1980–1995, suggests that potential real GDP grew at a 2.8 percent annual rate during those years. The upper line—which is drawn through data for 1996–2004 and is estimated so as to be parallel to the lower line—suggests that real potential GDP growth accelerated to a 3.5 percent annual rate during the past nine years.

Chart 1-6 **Okun's Law Estimation of Potential GDP Growth**
Real GDP growth in excess of its potential rate lowers the unemployment rate. Potential GDP has accelerated from 2.8 percent per year before 1995 to 3.5 percent thereafter.



Note: Change in unemployment rate is the fourth-quarter to fourth-quarter change in the demographically-adjusted unemployment rate. Output growth is the fourth-quarter to fourth-quarter percent change in the geometric mean of the income- and product-side measures of real GDP growth. Real GDP growth in 2004 is based on data for the first three quarters.
Sources: Department of Commerce (Bureau of Economic Analysis), Department of Labor (Bureau of Labor Statistics), and Council of Economic Advisers.

The growth rate of the economy over the long run is determined by its supply-side components, which include population, labor force participation, productivity, and the workweek. The Administration's forecast for the contribution of different supply-side factors to real GDP growth is shown in Table 1-2.

As seen in the fourth column of the table, the supply-side composition of real GDP growth has been unusual since the beginning of 2001, with exceptionally high productivity growth (4.2 percent at an annual rate) being partially offset by a large decline in the ratio of nonfarm business employment to household employment. This unusual pattern reflects the discrepancy between the slow growth of employment as measured by the employer survey and the more rapid growth of employment as measured by the household survey—a disparity that has not been adequately explained. Declines in the labor force participation rate have also held down real GDP growth during the past four years, although the reasons for these declines may be partly cyclical.

TABLE 1-2.—*Accounting for Growth in Real GDP, 1953–2010*

[Average annual percent change]

Item	1953 Q2 to 1973 Q4	1973 Q4 to 1995 Q2	1995 Q2 to 2001 Q1	2001 Q1 to 2004 Q3	2004 Q3 to 2010 Q4
1) Civilian noninstitutional population aged 16 and over [1]	1.6	1.4	1.2	1.2	1.1
2) Plus: Civilian labor force participation rate	.2	.4	.1	-.5	-.1
3) Equals: Civilian labor force [2]	1.8	1.8	1.4	.7	1.0
4) Plus: Civilian employment rate	-.1	.0	.3	-.4	.1
5) Equals: Civilian employment [2]	1.7	1.8	1.7	.4	1.1
6) Plus: Nonfarm business employment as a share of civilian employment [2 3]	-.1	.1	.5	-.9	.0
7) Equals: Nonfarm business employment	1.6	1.8	2.1	-.6	1.1
8) Plus: Average weekly hours (nonfarm business)	-.3	-.3	-.3	-.4	.1
9) Equals: Hours of all persons (nonfarm business)	1.3	1.6	1.9	-1.0	1.2
10) Plus: Output per hour (productivity, nonfarm business)	2.5	1.5	2.4	4.2	2.5
11) Equals: Nonfarm business output	3.8	3.1	4.3	3.2	3.8
12) Plus: Ratio of real GDP to nonfarm business output [4]	-.2	-.2	-.5	-.4	-.4
13) Equals: Real GDP	3.6	2.8	3.8	2.8	3.3

[1] Adjusted by Council of Economic Advisers to smooth discontinuities in the population series since 1990.

[2] Bureau of Labor Statistics research series adjusted to smooth irregularities in the population series since 1990.

[3] Line 6 translates the civilian employment growth rate into the nonfarm business employment growth rate.

[4] Line 12 translates nonfarm business output back into output for all sectors (GDP), which includes the output of farms and general government.

Note: The periods 1953 Q2, 1973 Q4, and 2001 Q1 are NBER business-cycle peaks. Detail may not add to total because of rounding.

Sources: Council of Economic Advisers, Department of Commerce (Bureau of Economic Analysis), and Department of Labor (Bureau of Labor Statistics).

The 4.2 percent rate of productivity growth during the past three and a half years is remarkable, particularly because this period included a recession, and is well above the already strong 2.4 percent productivity growth experienced from 1995 to 2001. The causes of the post-2001 productivity acceleration remain a mystery at this time, and so it seems unwise to presume that the rapid growth of the last few years will be sustained indefinitely. The Administration expects nonfarm labor productivity to grow at a 2.5 percent annual pace over the next six and a quarter years. This is a bit below the assumed 2.6 percent trend rate of growth, similar to the 2.4 percent pace during the 1995–2001 period, and only modestly above the 2.3 percent average pace since the data series began in 1947.

Growth of the labor force (also shown in Table 1-2) is projected to contribute 1.0 percentage point per year, on average, to growth of potential output through 2010. Labor force growth results from changes in the working-age population and the participation rate. The Bureau of the Census projects that the working-age population will grow at an average annual rate of 1.1 percent through 2010. This pace is more rapid in the near future and then trails off after 2008. The last year in which the labor force participation rate increased was 1997, suggesting that the long-term trend of rising participation has ended. Since then, the participation rate has fallen at an average 0.2 percent annual pace.

Demographic factors will likely lead to yet lower participation in future years. Baby boomers are currently in their forties and fifties. Over the next several years they will move into older age brackets with lower participation rates. As a result, the labor force participation rate is projected to edge down an average of 0.1 percent per year through 2010. The decline may be greater, however, after 2008, which is the year that the first baby boomers reach the early-retirement age of 62. Together with the expected deceleration of the growth of the working-age population, the falling participation rate works to slow the growth rate of potential output to 3.1 percent in 2009–2010.

An expanding workweek is projected to add 0.1 percentage point to potential GDP growth during the projection period. Most of this increase occurs in the next couple of years during the period of strong cyclical labor demand, rather than as a permanent feature of long-term growth. The ratio of nonfarm employment to household employment (which, as noted above, subtracted a puzzling 0.9 percentage point from real GDP growth during 2001–2004) is projected to contribute nothing toward real GDP growth during the projection period. It is possible, however, that it might reverse course during the next few years, offsetting its recent weakness. Such a development would add to real GDP growth.

In sum, potential real GDP is projected to grow at a 3.2 percent annual pace through 2008, and then to slow to 3.1 percent in 2009 and 2010. Actual real GDP growth during the six-year forecast period is projected to be slightly higher, at 3.3 percent, as the unemployment rate declines and the workweek expands. The economy is forecast to grow at potential beginning in 2007, and the unemployment rate is projected to stabilize at 5.1 percent.

Interest Rates over the Long Term

The Administration forecast of interest rates is based on financial market data as well as a survey of economic forecasters. The yield curve, which shows how the yield on Treasury securities rises with the maturity of those securities, is currently steeper than usual. This steepness suggests that financial market participants expect short-term interest rates to rise. The Administration forecast thus projects gradual increases in the interest rate on 91-day Treasury bills to continue through 2010—with most of the increase expected during the next two years. This rate is expected to reach 4.2 percent in 2010, at which point the real interest rate on 91-day Treasury bills will be close to its historical average. The projected path of the interest rate on 10-year Treasury notes is consistent with the path of short-term Treasury rates. By 2010, the 10-year rate is projected to be 5.7 percent, 3.3 percentage points above expected CPI inflation—a typical real rate by historical standards. By 2010, the projected term premium (the difference between the 10-year interest rate and the 91-day rate) of 1.5 percentage points is in line with its historical average.

The Composition of Income over the Long Term

A primary purpose of the Administration's economic forecast is to estimate future government revenues, which requires a projection of the components of taxable income. The Administration's income-side projection is based on the historical stability of the long-run labor compensation and capital shares of gross domestic income (GDI). During the first three quarters of 2004, the labor compensation share of GDI was only 56.8 percent—well below its 1959–2003 average of 57.9 percent. From this jumping-off point, the labor share is projected to slowly rise to 57.8 percent by 2010.

The labor compensation share consists of wages and salaries, which are taxable, employer contributions to employee pension and insurance funds (that is, fringe benefits), which are not taxable, and employer contributions for government social insurance. The Administration forecasts that the wage and salary share of compensation will be roughly stable during the projection period. One of the main factors boosting non-wage compensation during the

past two years has been employer contributions to defined-benefit pension plans, and although these contributions are likely to remain high in the next few years, they are not projected to rise as a share of compensation after 2004.

The capital share of GDI is expected to fall from its currently high level before plateauing near its historical average. Within the capital share, a near-term decline in depreciation (an echo of the decline in short-lived investment during 2001 and 2002) is expected to boost corporate profits, which in the third quarter of 2004 were about 10.2 percent of GDI (excluding the temporary negative effects of hurricanes)—a figure well above its post-1959 average of 8.5 percent. From 2005 forward, the profit share is expected to slowly edge down toward its long-term average.

The projected pattern of book profits (known in the national income accounts as "profits before tax") reflects the termination of the window for expensing of equipment investment allowed under the Job Creation and Worker Assistance Act of 2002 and the Jobs and Growth Tax Relief Reconciliation Act of 2003. These expensing provisions reduced taxable profits from the third quarter of 2001 through the fourth quarter of 2004. The expiration of the expensing provisions increases book profits from 2005 forward, however, because investment goods expensed during the three-year expensing window will have less remaining value to depreciate. The share of other taxable income (the sum of rent, dividends, proprietors' income, and personal interest income) is projected to fall in coming years, mainly because of the delayed effects of past declines in long-term interest rates, which reduce personal interest income during the projection period.

Conclusion

Supported by expansionary fiscal and monetary policy, the economy now appears to have shifted from a tentative recovery to a sustained expansion. Consumer spending remains strong, businesses are continuing to invest, and employment growth has rebounded. Prospects remain bright for continued growth in the years ahead. And yet much work remains in making our economy as productive as possible. Later chapters of this *Report* explore how pro-growth policies, such as reforming our tax system, expanding the reach of property rights, and encouraging innovation, can enhance our economic performance.